BAY AREA WATER SYSTEM
2018 WATER QUALITY REPORT

Serving the People Of:

- Akron Township
- Bangor Township
- Bangor-Monitor Association
- Beaver Road Association
- Beaver Township
- City of Bay City
- City of Essexville
- City of Pinconning
- Hampton Township
- Frankenlust Township
- Fraser Township
- Kawkawlin Metro
- Kawkawlin Township
- Merritt Township
- Monitor Township
- Pinconning Township
- Portsmouth Township
- Williams Township
- Wisner Township

Safe Drinking Water - Our Most Important Goal

Delivering safe drinking water to nearly 100,000 customers who rely upon us every day is the number one goal of the operators, maintenance personnel, and supervisors at the Bay Area Water Treatment Plant (BAWTP), and of the water systems that purchase and distribute water throughout Bay County. This Annual Water Quality Report will be of interest to you if you consume drinking water from the public water supply in our service area. This report contains water quality data from the Bay Area Water Plant, along with results from the distribution system for calendar year 2018, unless stated otherwise.

Is your water safe?

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. Removing all contaminants would be extremely expensive, and in most cases, would not provide increased protection of public health. In order to ensure that tap water is safe to drink, the U.S. EPA prescribes regulations that limit the levels of certain contaminants in water provided by public water systems. Federal Food and Drug Administration regulations establish limits for contaminants in bottled water, which provide the same protection for public health.

The State of Michigan and the U.S. EPA require us to test our water on a regular basis to ensure its safety. **We are proud to state that we met all the monitoring and reporting requirements for 2018.** More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's (EPA) Safe Drinking Water Hotline (800) 426-4791.

What's in This Report?

Source Water

The source of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include;

- **Microbial** contaminants, such as viruses and bacteria which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- **Inorganic** contaminants, such as salts and metals, which can be naturally-occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- **Pesticides** and **herbicides**, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.
- **Organic** chemical contaminants, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems.
- **Radioactive** contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

Source Water Assessment

Key to delivering high quality water from the BAWTP starts with high quality raw water purchased and supplied by the Saginaw-Midland Municipal Water Supply Corporation (jointly owned by the cities of Saginaw and Midland). The Saginaw-Midland System's Whitestone Point facility near AuGres draws raw water from Lake Huron, a far more consistent and superior raw water source than the Saginaw Bay, which was the previous source used prior to 2015. Raw water travels approximately 50 miles to the Bay Area Water Treatment Plant for processing.

SMMWSC's intake is located near Whitestone Point, a location selected in the 1940s after an engineering study showed that water at this location was typical of deep Lake Huron currents and relatively free from influences from Saginaw Bay and nearby on-shore sources of contamination.

The MDEQ previously completed Source Water Assessments of all 59 public water supplies in Michigan that draw drinking water from surface water sources such as rivers, lakes, and impoundments. The State used a seven-tiered susceptibility rating scale from "very low" to "very high" based primarily on geologic sensitivity, water chemistry, and contaminant sources. The MDEQ's Source Water Assessment report determined that the susceptibility of the Saginaw-Midland source raw water was rated "**Moderately Low**." This rating is the best a surface water source can achieve.

Anyone interested in seeing the source water assessment for water being used at the BAWTP can call the plant at (989) 439-7245. Additional information about the MDEQ Source Water Assessment program can be viewed on the internet at **http://www.michigan.gov/deq/** . Follow the link to Water, then to Drinking Water, and finally to Source Water Assessment.

Water Quality Data Tables

The data presented in the upcoming tables are from testing done in 2018, unless otherwise noted. In the first table you will find terms and abbreviations that might not be familiar to you. To help you better understand these terms, we have provided the definitions.

DEFINITIONS OF ABBREVIATED SYMBOLS

Symbol	Abbreviation for	Definition/Explanation
AL	Action Level	The concentration of a contaminant, which, if exceeded, triggers treatment or other requirements that a water system must follow.
LRAA	Locational Running Annual Average	The average of sample results taken at a particular monitoring location during the previous four calendar quarters, calculated quarterly.
MCL	Maximum Contaminant Level	The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
MCLG	Maximum Contaminant Level Goal	The level of contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
MRDL	Maximum Residual Disinfectant Level	The highest level of disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
MRDLG	Maximum Residual Disinfectant Level Goal	The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.
NA	Not Applicable	
NTU	Nephelometric Turbidity Units	A measurement of the lack of clarity in water, or cloudiness of the water.
PPB	Parts Per Billion	The PPB is equivalent to micrograms per liter, or ug/L
PPM	Parts Per Million	The PPM is equivalent to milligrams per liter, or mg/L.
RAA	Running Annual Average	The average of sample results during the previous four calendar quarters, calculated quarterly.
TT	Treatment Technique	A required process intended to reduce the level of a contaminant in drinking water.

GENERAL WATER QUALITY TESTING RESULTS FROM THE PLANT TAP

Testing Done	Average	Range	Definition of Substance
pH	7.6	7.4-7.8	A measure of acidity and alkalinity.

Hardness (as CaCO3) (ppm)	102	86-120	A measure of the total concentration of calcium and magnesium ions.
Alkalinity (as CaCO3) (ppm)	80	68-95	A measure of the capacity of water to neutralize an acid.
Calcium (as CaCO3) (ppm)	72	60-90	Inorganic substances often found in water.
Sulfates (ppm)	15	7-23	
Chloride (ppm)	10	8-16	
Conductivity (uS/cm)	233	214-282	A measure of the ability to carry an electrical current
Orthophosphate-PO4 (ppm)	3.22	3.10-3.52	Corrosion inhibitor added to water to prevent corrosion of plumbing materials

REGULATED PARAMETERS AT THE BAY AREA WATER TREATMENT PLANT TAP

Contaminants	MCL	MCLG	Result	Violation?	Typical Source
Fluoride (ppm) (a)	4	4	0.63	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Barium (ppm) (sampled in 2017)	2	2	.01	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Sodium (ppm) (b)	NA	NA	7	NA	Erosion of natural deposits

a) Level reported from annual regulatory sampling. The plant also performs daily sampling. Results for 2018 were: average 0.61 PPM; range - 0.07 PPM - 0.84 PPM.

b) Sodium is not a regulated contaminant.

REGULATED PARAMETERS AT BAY AREA WATER TREATMENT PLANT FILTER EFFLUENT

	MCL	MCLG	Average	Range	Violation	Typical Source
Turbidity	TT(c)	0	0.014 NTU	0.011-0.061 NTU	None	Soil runoff.

c) The treatment technique requires that all samples test below 1 NTU 100% of the time and below 0.3 NTU 95% of the time in a month. 100 % of samples in 2018 were below 0.3 NTU, indicating full compliance with turbidity standards in 2018.

REGULATED PARAMETERS IN THE DISTRIBUTION SYSTEM

Disinfectant & Disinfection By-Products

Substance	MRDL	MRDLG	Highest RAA	Range	Violation	Typical Source
Free Chlorine (as Cl2) (PPM)	4	4	0.73	0.04-1.55	No	Water additive used to control microbes.

Total Trihalomethanes (TTHM) & Haloacetic Acid (HAA5)

Typical Source: Byproduct of drinking water disinfection

TTHM MCL = 80 ppb HAA5 MCL = 60 ppb	Akron Twp.	Bangor Twp.	Bangor Monitor	City of Bay City	Bay County Supply #1	Beaver Rd. Assoc.	Beaver Twp.	City of Essexville	Fraser Twp.	Hampton Twp.	Kawkawlin Metro	Kawkawlin Twp.	Merritt Twp.	Monitor Twp.	City of Pinconning	Pinconning Twp.	Portsmouth Twp.	Williams Twp.	Wisner Twp.
Highest TTHM LRAA	**61**	**45**	**45**	**45**	**43**	**66**	**56**	**46**	**45**	**56**	**46**	**43**	**51**	**40**	**48**	**57**	**48**	**48**	**44**
Low	56	24	21	14	26	39	40	29	23	38	21	21	32	32	29	41	37	25	28
High	56	60	63	65	60	87	60	55	56	71	67	60	54	55	73.5	58	49	61	53
Violation?	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No
Highest HAA5 LRAA	**18**	**22**	**25**	**23**	**24**	**23**	**23**	**22**	**27**	**24**	**24**	**26**	**23**	**24**	**23**	**25**	**21**	**22**	**23**

Low	21	13	13	13	17	16	17	8.7	20	16	14	18	17	19	18	20	16	15	29
High	21	32	35.3	33	32	32	29	29	35	40	40	38	30	31	29	36	26	36	16
Violation?	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No	No

Inorganic Contaminant Subject to AL	Action Level	MCLG	Your Water (d)	Range of Results	Date Range/Year Sampled	Number of Samples Above AL	Typical Source of Contaminant
Lead (ppb)	15	0	**5.1**	<1.0-55	**1/1/2018-6/30/2018**	**2**	Lead service lines, corrosion of household plumbing including fittings and fixtures; Erosion of natural deposits
			6.0	<1.0-171	**7/1/2018-12/31/2018**	**3**	
Copper (ppm)	1.3	1.3	**.230**	0.0027-0.420	**1/1/2018-6/30/2018**	**0**	Corrosion of household plumbing systems; Erosion of natural deposits;
			.212	0.0015-0.940	**7/1/2018-12/31/2018**	**0**	

d) Ninety (90) percent of the samples collected were at or below the level reported for our water.

Additional Monitoring

Unregulated contaminants are those for which the EPA has not established drinking water standards. Monitoring helps the EPA to determine where certain contaminants occur and whether it needs to regulate those contaminants

UNREGULATED CONTAMINANT MONITORING IN THE BAY CITY DISTRIBUTION SYSTEM				
Unregulated Contaminant Name	**Average Level Detected**	**Range**	**Year Sampled**	**Comments**
Bromochloroacetic acid (ppb)	2.24	<1.00-3.28	2018	Results of monitoring are available upon request
Bromodichloroacetic acid (ppb)	2.74	1.79-3.57	2018	
Dichloroacetic acid (ppb)	9.11	3.96-17.0	2018	
Trichloroacetic acid (ppb)	11.3	4.55-16.0	2018	

Undetected Contaminants

The following contaminants were monitored in 2018 at either the plant tap or in the distribution system and were not detected. Results of monitoring are available upon request.

1,1 Dichloroethane
1,1 Dichloroethylene
1,1 Dichloropropene
Carbaryl
Carbofuran
Carbon tetrachloride
Metribuzin
Molinate
Monobromoacetic acid

1,1,1 Trichloroethane
1,1,1,2 Tetrachloroethane
1,1,2 Trichloroethane
1,1,2,2 Tetrachloroethane
1,2 Dichlorobenzene
1,2 Dichloroethane
1,2 Dichloropropane
Chlorobenzene
Chlorodibromoacetic acid
Chloroethane
Chloromethane
cis-1,2 Dichloroethylene
cis-1,3 Dichloropropene
Cylindrospermopsin
Monochloroacetic acid
Naphthalene
n-Butylbenzene
Nitrate as N
Nitrite as N
n-Propylbenzene
o-Chlorotoluene

1,2,3 Trichlorobenzene
1,2,3 Trichloropropane
1,2,4 Trichlorobenzene
Dibromomethane
Dicamba
Dichlorodifluoromethane
Oxamyl
o-Xylene
PCB (aroclor 1016)

1,2,4 Trimethylbenzene
1,3 Dichlorobenzene
1,3 Dichloropropane
Dichloromethane
Dieldrin
Dinoseb
PCB (aroclor 1221)
PCB (aroclor 1232)
PCB (aroclor 1242)

1,3,5 Trimethylbenzene
1,4 Dichlorobenzene
2,2 Dichloropropane
2,4,5-T
2,4,5-TP (silvex)
2,4-D
3 Hydroxycarbofuran

4,4'-DDD
4,4'-DDE
4,4'-DDT

Acetochlor
Acifluorfen
Alachlor

Aldicarb
Aldicarb sulfone
Aldicarb sulfoxide
Aldrin

alpha-Chlordane
Anatoxin-a
Atrazine
Bentazon
Benzene
Bromobenzene
Bromochloromethane

Endrin
Endrin aldehyde
Ethylbenzene
Fluorotrichloromethane
gamma-Chlordane
Heptachlor
Heptachlor epoxide

Hexachlorobenzene
Hexachlorobutadiene
Hexachlorocyclohexane (alpha-BHC)

Hexachlorocyclohexane (beta-BHC)
Hexachlorocyclohexane (delta-BHC)
Hexachlorocyclopentadiene

Iron (automated)
Isopropylbenzene
Lindane (gamma-BHC) m
& p-Xylene

Methiocarb
Methomyl
Methoxychlor
Methyl ethyl ketone
Methyl isobutyl ketone
Methyl-tert-butyl ether (MTBE)
Metolachlor

PCB (aroclor 1248)
PCB (aroclor 1254)
PCB (aroclor 1260)
p-Chlorotoluene
Pentachlorophenol
Picloram
p-Isopropyltoluene

Polybrominated biphenyls
Propoxur
sec-Butylbenzene

Simazine Styrene
tert-Butylbenzene

Tetrachloroethylene
Tetrahydrofuran
Toluene
Total DCPA degradates, mono- and di-acid

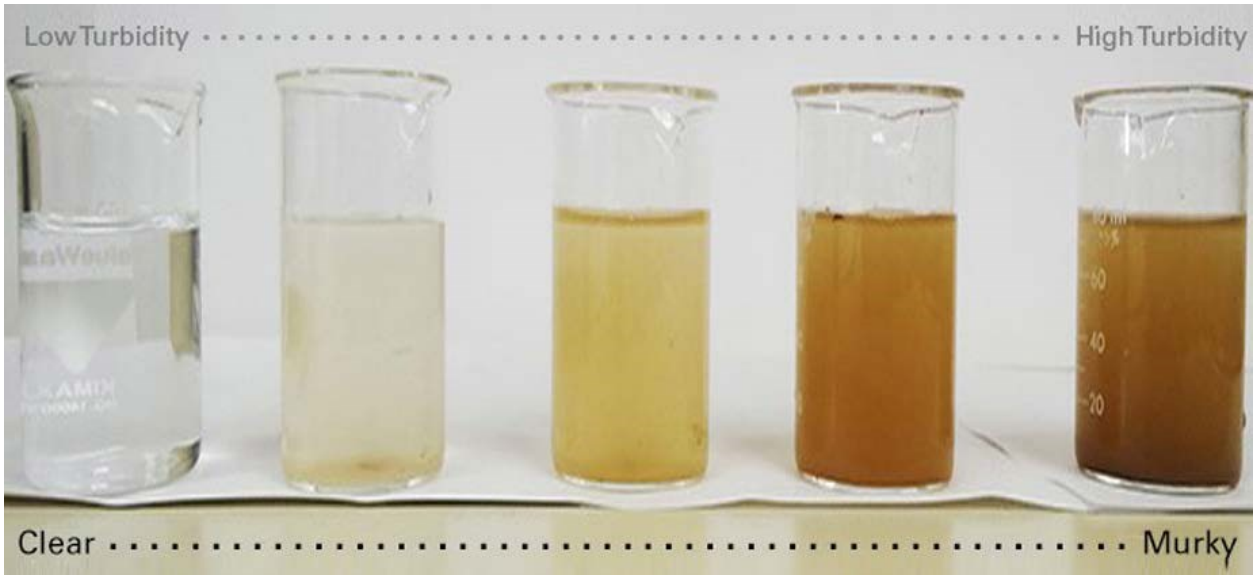
Total Microcystins & Nodularins
Total Xylenes
Toxaphene
trans-1,2 Dichloroethylene
trans-1,3 Dichloropropene
Trichloroethylene
Vinyl chloride

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Water Drinking Hotline (800) 426-4791.

Information Regarding Water Quality Data

Below and on the next page, you will find additional information regarding some of the substances reported in the water quality data table. Information may include what the substance is and details on sampling.

Turbidity



Turbidity is defined as the cloudiness or haziness of water caused by large numbers of individual particles that are in water. The measurement of turbidity (in NTUs) is a key test of water quality, and we monitor it because it is a good indicator of the effectiveness of our filtration system. The higher this number is, the cloudier the water will appear. Having an average reading of 0.014 NTU in our filtered water shows that the plant is producing water with exceptional clarity.

Total Coliforms & E. coli

Water in the plant tap and distribution system is regularly tested for Total Coliforms and E coli. Total Coliforms are an indicator bacteria; by detecting their presence, it indicates that there are possible pathogens present, which are disease causing bacteria, in the water. E. coli is a type of coliform that is directly associated with fecal contamination and disease outbreaks. Water with coliform contamination may pose a special health risk for infants, young children, and people with severely compromised immune systems. Finished water leaving the plant was tested daily in 2018 for Total Coliforms and E. coli. None of these samples tested positive because coliforms in the raw water are removed or destroyed through filtration and chlorination.

System-wide, 1,451 regular monthly bacteriological samples were collected from the distribution system in 2018, and none of these samples tested positive for Total Coliforms or E.coli.

Chlorine

Although water leaving the plant has been shown to be coliform free, our goal is that water remains coliform free throughout the distribution system and at your tap. The way to accomplish this is to ensure that free chlorine, a disinfectant, is found throughout the system. Free chlorine levels were found in the distribution system ranging from 0.04 ppm to 1.55 ppm. The highest level of free chlorine allowed in drinking water is 4.0 ppm.

Total Trihalomethanes (TTHM) & Haloacetic Acids (HAA)

The Bay Area Water Treatment Plant uses Sodium Hypochlorite for chlorination as a disinfectant. While chlorination has made the U.S. water supply safe from illness produced by bacteria, viruses and parasites,

it also produces byproducts. These disinfection byproducts include a group of chemicals known as Total Trihalomethanes (TTHMs) and Haloacetic Acids (HAAs).

The U.S. Environmental Protection Agency (EPA) has mandated public water systems check for TTHMs and HAAs calculated on a running 12 month average, or Locational Running Annual Average (LRAA). The MCL, based on LRAA for TTHMs in the water should be less than 80 parts per billion (ppb), and HAAs below 60 ppb, as established in the Disinfection Byproduct Rule (DBPR). We can proudly state that there were no TTHM or HAA violations in any of the communities we served in 2018.

Lead & Copper

Lead and copper are not naturally present in our water, and they are not detected in the tap water leaving the plant. However, as long as there are lead services and lead containing fixtures in our water system, there will be traces of lead detected during testing at locations in the distribution system. In an effort to keep levels low, the water plant feeds phosphoric acid, a corrosion inhibitor. This forms a protective coating on service lines and plumbing that keeps water from dissolving some metals into the drinking water.

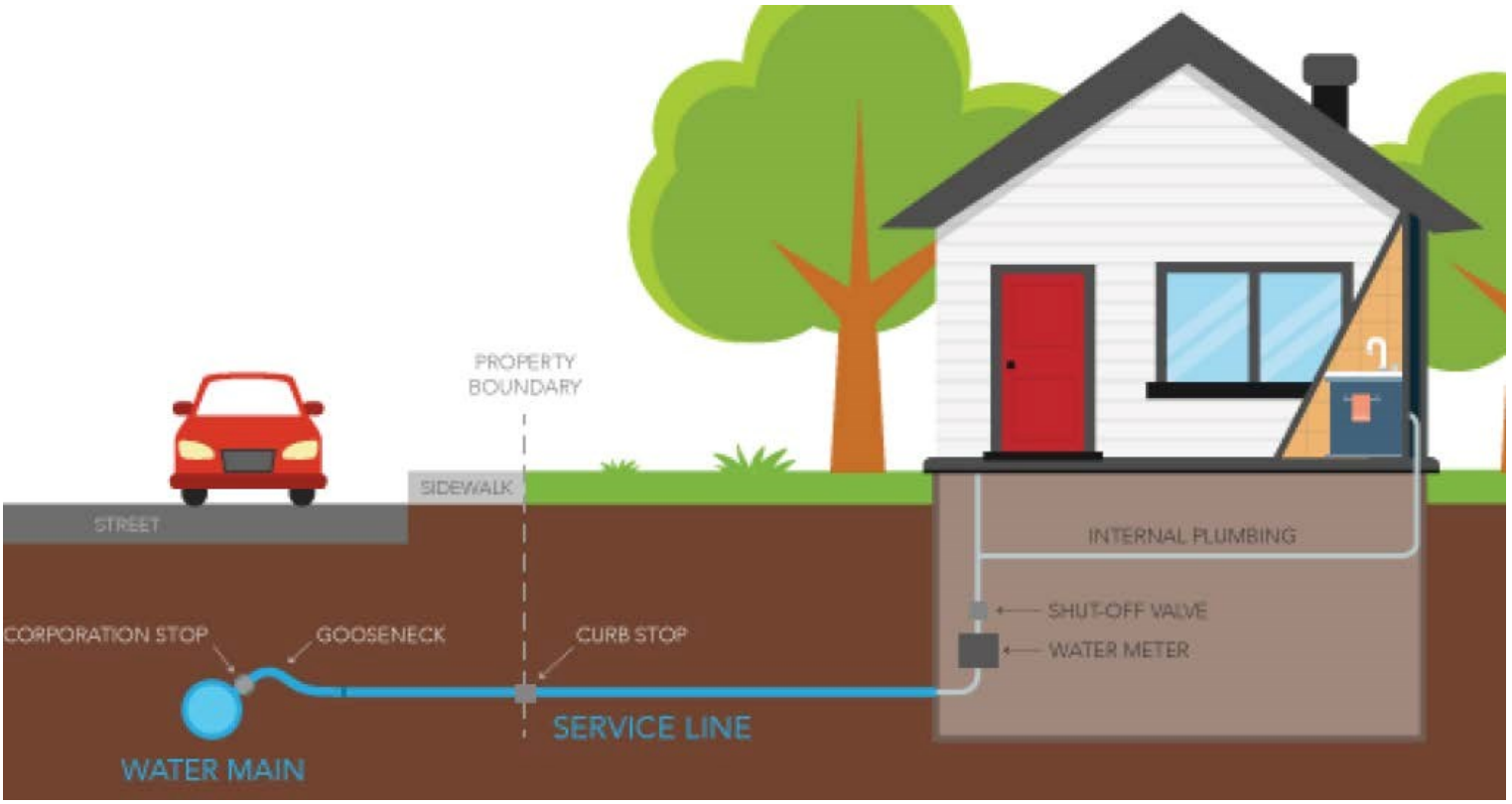
If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The Bay Area Water System is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline at 1-800-426-4791 or at **http://www.epa.gov/safewater/lead**.

Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.

Service Lines

A service line is the pipe that connects a house or business to a water main. The city or township that supplies the water owns the line from the water main to a water shutoff valve called a curb stop, and the homeowner owns the section of service line between the curb stop and the house (see pic on next page).

Service Lines (continued)



The chart below shows the communities in the Bay Area Water System that have lead or unknown service lines. A service line is listed as a lead service if **any** part of the line is lead. If a community is not absolutely certain what every section of the service is made of, it is listed as an 'unknown service line' and these will be investigated in the near future. A full inventory of the service lines in our system is currently being performed and is expected to be completed over the next 5 years.

Service Line Numbers			
Community	Total Service Lines	Known Lead Service Lines	Unknown Service Lines
Bangor Township	5,213	11	1,430
Bangor-Monitor Metropolitan Water District*	1,389	0	115
Bay County Water Supply #1 (including parts of Frankenlust, Monitor, & Portsmouth Townships)	3,485	10	462
Beaver Rd. Water Association*	282	0	115
City of Bay City	14,532	5,450	6,730
City of Essexville	1,578	191	245
City of Pinconning*	650	0	634
Hampton Township	2964	20	2944
Kawkawlin Township*	1,217	0	250
Kawkawlin Metro*	450	0	450
Merritt Township*	562	0	120
Monitor Township*	2,131	0	275
Pinconning Township*	569	0	115
Williams Township*	1,993	0	265

**Based on our records, we do not believe that there are any lead services in these communities and will be confirming this over the next 5 years.*

Per and Polyfluoroalkyl Substances (PFAS)

Per- and polyfluoroalkyl substances (PFAS), sometimes called PFCs, are a group of chemicals that are resistant to heat, water, and oil. PFAS have been classified by the U.S. Environmental Protection Agency (EPA) as an emerging contaminant on the national landscape. For decades, they have been used in many industrial applications and consumer products such as carpeting, waterproof clothing, upholstery, food paper wrappings, fire-fighting foams, and metal plating. They are still used today. PFAS have been found at low levels both in the environment and in blood samples of the general U.S. population.

These chemicals are persistent, which means they do not break down in the environment. They also bioaccumulate, meaning the amount builds up over time in the blood and organs. Although our understanding of these emerging contaminants is constantly evolving, elevated levels of PFAS have the potential to cause increased cholesterol, changes in the body's hormones and immune system, decreased fertility, and increased risk of certain cancers. Links to these health effects in humans are supported by epidemiologic studies and by laboratory studies in animal models.

Are there health advisory levels?

The U.S. EPA has not established enforceable drinking water standards, called maximum contaminant levels, for these chemicals. However, the U.S. EPA has set a lifetime health advisory (LHA) level in drinking water for two PFAS: perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS). The PFOA and PFOS LHA is the level, or amount, below which no harm is expected from these chemicals. The LHA level is 70 parts per trillion (ppt) for PFOA and 70 ppt for PFOS. If both PFOA and PFOS are present, the LHA is 70 ppt for the combined concentration.

The amount of PFOA and PFOS combined in the samples collected from the raw water intake at Whitestone Point in 2018 ranged from 0.545 to 1.437 ppt, which is more than 48 times lower than the LHA for the combination of these two chemicals. PFOA and PFOS were **not detected** in the samples collected from the BAWTP raw water or from the plant finished water tap. There are many other PFAS compounds that currently do not have LHA levels. For information on PFOA, PFOS, and other PFAS, including possible health outcomes, you may visit these websites: **https://www.epa.gov/pfas; https://www.atsdr.cdc.gov/pfas/; or http://www.michigan.gov/pfasresponse.**

Why was the Bay Area Water System's source water tested for PFAS?

The Michigan Department of Environmental Quality (MDEQ) has coordinated a statewide initiative to test drinking water from all schools that use well water and community water supplies for PFAS. MDEQ is taking this precautionary step to testing these drinking water sources to determine if public health actions are needed.

Who can I call if I have questions about PFAS in my drinking water?

If any resident has additional questions regarding this issue, the State of Michigan Environmental Assistance Center can be contacted at 800-662-9278. Representatives may be reached to assist with your questions Monday through Friday, 8:00 AM to 4:30 PM. You may also contact the Bay Area Water Treatment Plant at (989) 439-7245.

Is it safe to eat fish in these areas?

Wild fish samples are being collected from local lakes and rivers. These samples will be analyzed to determine the levels of PFAS in fish and make recommendations on how much is safe to eat. Some information is already available in the State of Michigan Eat Safe Fish guides, which are available at **http://www.michigan.gov/eatsafefish**.

May I bathe or swim in water containing PFAS?

Yes, information currently available suggests that this is not a major contributor to overall exposure.

How can PFAS affect people's health?

Some scientific studies suggest that certain PFAS may affect different systems in the body. The National Center for Environmental Health (NCEH)/Agency for Toxic Substances and Disease Registry (ATSDR) is working with various partners to better understand how exposure to PFAS might affect people's health. If you are concerned about exposure to PFAS in your drinking water, please contact the Michigan Department of Health and Human Services Toxicology Hotline at 800-648-6942, or the Center for Disease Control and Prevention/ATSDR at **https://www.cdc.gov/cdc-info/** or 800-232-4636. Currently, scientists are still learning about the health effects of exposures to PFAS, including exposure to mixtures.

What other ways could I be exposed to PFOA, PFOS and other PFAS compounds?

PFAS are used in many consumer products. They are used in food packaging such as fast food wrappers and microwave popcorn bags; waterproof and stain resistant fabrics such as outdoor clothing, upholstery, and carpeting; nonstick coatings on cookware; and cleaning supplies including some soaps and shampoos. People can be exposed to these chemicals in house dust, indoor and outdoor air, food, and drinking water. There is still uncertainty regarding these routes of exposure and more research is necessary.

What is being done about this issue?

State and local agencies are actively working to obtain more information about this situation as quickly as possible. Additional testing of the drinking water will be conducted to demonstrate that the PFAS levels are consistent and reliably below the existing LHA. Additional monitoring in and around our region and other affected areas will also be performed by the Michigan Department of Environmental Quality, which will help us answer more questions and determine next steps.

How can I stay updated on the situation?

The state has created a website where you can find information about PFAS contamination and efforts to address it in Michigan. The site will be updated as more information becomes available. The website address is: **http://michigan.gov/pfasresponse**.

Opportunities for Public Participation

We believe that informed and involved citizens can be strong allies of water systems as they take action on pressing problems. The table below lists the meeting dates and locations where your elected officials may discuss water system issues.

Water Supplier	Board Meeting Monthly Schedule	Time	Location of Meeting
Akron Twp.	3rd Thursday	7:00 pm	Township Hall, 4280 Bay City Forestville Rd.
Bangor Twp.	2nd Tuesday	6:00 pm	Township Admin. Office, 180 State Park Dr.
Bangor-Monitor Assoc.	2nd Wednesday	9:00 am	Bangor-Monitor, 2523 E. Midland Rd.
Beaver Twp.	2nd Monday	6:30 pm	Township Hall, 1850 S. Garfield Rd.
Bay County Road Comm/DWS	1st & 3rd Wednesday (typically)	9:00 am	Road Commission, 2600 E. Beaver Rd.
City of Bay City	1st & 3rd Monday	7:30 pm	City Hall, 301 Washington Ave.
City of Essexville	2nd Tuesday	7:00 pm	City Hall, 1107 Woodside Ave.
City of Pinconning	3rd Monday	6:00 pm	City Hall, 208 S. Manitou St.
Frankenlust Twp.	2nd Tuesday	7:00 pm	Township Hall, 2401 Delta Rd.
Fraser Twp.	2nd Monday	7:00 pm	Township Hall, 1474 N. Mackinaw Rd.
Hampton Twp.	2nd & 4th Monday	7:00 pm	Township Hall, 801 W. Center Rd.
Kawkawlin Metro Assoc.	1st Tuesday	7:00 pm	405 Old Beaver Road
Kawkawlin Twp.	2nd Monday	7:00 pm	Township Administrative Bldg, 1836 E. Parish Rd
Merritt Twp.	2nd Tuesday	7:30 pm	Township Hall, 48 E. Munger Rd.
Monitor Twp.	4th Monday (typically)	7:00 pm	Township Hall, 2483 Midland Rd.
Pinconning Twp.	2nd Tuesday	4:00 pm	Township Hall, 1751 E. Cody Estey Rd
Portsmouth Twp.	3rd Monday	6:00 pm	Township Hall, 1711 W. Cass Ave.
Williams Twp.	2nd Tuesday	7:00 pm	Township Hall, 1080 W. Midland Rd.
Wisner Twp.	3rd Monday	7:00 pm	Township Hall, 7894 Bay City Forestville Rd.

For more information please contact:

Contact Name: Ryan W. Goebel, Plant Superintendent
Bay Area Water Treatment Plant
Address: 2701 N. Euclid Avenue
Bay City, MI 48706
Phone: (989)439-7245

Customer questions and comments are welcome

To receive a hard copy of this report, or to ask questions, please write, call, or send email to:

E-mail: bawtp@baycodws.org

This entire water quality report is also available on the
Web site: **www.baycodws.org/ccr2018.pdf**